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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,017	10/24/2003	Dale K. Hitt	625500-501	1755
37374	7590	02/23/2010	EXAMINER	
INSKEEP INTELLECTUAL PROPERTY GROUP, INC			FAYYAZ, NASHMIYA SAQIB	
2281 W. 190TH STREET			ART UNIT	PAPER NUMBER
SUITE 200				2856
TORRANCE, CA 90504				
			NOTIFICATION DATE	DELIVERY MODE
			02/23/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

inskeepstaff@inskeeplaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/693,017	HITT ET AL.	
	Examiner	Art Unit	
	Nashmiya S. Fayyaz	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 October 2009.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,6-13,15-22 and 48-66 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,6-13 and 48-66 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 6-13, and 48-61, 63, 64 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buss et al-US Patent # 7,240,743 in view of Chuang-US Patent # 6,601,440. As to claims 1, 8, 50, 61, 63 and 66, Buss et al disclose a soil probe insertion arrangement used in the prior art including probe body 10 for placement in the ground via conical end 16, a stabilizing member (stabilization plates 20 with pegs 20a which are substantially positioned beneath the ground and a collar 24 which appear to be such that water flow down the body would be **minimized** by the depicted contact in figs. 4 and 5 with the probe body) and disposed on an external side of the body 10 and having an interior for insertion of sensor member/component mast (sensor array 18) which uses capacitive sensors for measuring soil properties, top member (cover 14) which must be removable in order to allow for the recited insertion of the sensor array, see fig. 1 and col. 3, lines 46 et seq. Further, it is noted that Buss et al does not specifically recite that the probe wirelessly transmits data or a wireless transceiver circuit. However, in a related prior art device, Chuang discloses an apparatus for detecting soil properties which includes a wireless transmitter 32/transceiver on circuit board 30 within the housing 1 of the probe, see fig. 2. Inclusion of a wireless transmitter in the Buss et al device would have been

obvious to one of ordinary skill in the art at the time of the invention in order to remotely monitor the conditions of the soil. As to claim 6, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a collar at the head end of the probe body in order to mount the cover. As to claim 7 and 57, usage of a battery is not disclosed in Buss et al. However, in the Chuang device the battery/power supply 31 is depicted within the probe body for the obvious purpose of powering the sensors locally, see fig. 2. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included a battery or power supply in the Buss et al device in order to have an in situ power source to supply power to the electronic sensors. As to claims 10 and 59, further usage of a solar panel as a power supply is old and well-known. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a solar panel as the power supply in Chuang in order to eliminate the need for an electronic battery. As to claims 9 and 56, the type of mounting is not clear in the Buss et al reference. However, given the Chuang depiction of threading, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included a screw mount in order to secure the cover to the probe body since such a mounting is old and well-known. As to claims 11 and 58, fig. 1 appears to have some display on the cover 14 indicated by the boxes. As to claim 12, usage of an LCD/LED display is old and very well-known. Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to have provided an LCD/LED display on the probe of Buss et al. to give a visual indication of the probe operation. As to claim 13, Buss et al indicate that the probe is round/cylindrical. As to claim 48, the sensor array 18 appears to be in the form of a mast. As to claims 49 and 55, the sensors are recited as soil conductive, see col. 2, lines 26 et seq. As to claim 51, given the depiction of fig. 1, it would appear that the sensor array mast connects to the top. As to claim 52, note the plurality of components since it is a sensor array. As to claims 53 and 54, when positioned in the probe body 10, it would appear that the components are positioned along a length and perimeter. As to claims 60 and 64, note that the peg shape appears to be tapered in the figure 2 embodiment.

3. Claims 62 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buss et al in view of Chuang as applied to claims 1, 6-13, and 48-61, 63, 64 and 66 above, and further in view of McLeroy-US Patent # 5,408,893. As to claims 62 and 65, Buss et al disclose usage of stabilizing plates 20 with ring shaped collar 24 but does not specify usage of a rubber ring collar. In a related prior art device, McLeroy disclose a ground moisture probe 10 with body (rod 11) to be inserted into soil ground surface 9 for testing the soil which further includes a stop 19 in the form of a ring washer or peg surrounding the rod, see fig.1 and col. 3. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have employed a stop 19 such as

disclosed by McLeroy since it allows for the adjustment of desired soil depth penetration and adds flexibility, see col. 3, lines 23-46. Further, usage of rubber is not specifically disclosed. However, the usage of rubber for ring washers is old and well-known and also McLeroy discuss compression such that the usage of rubber would have been obvious to one of ordinary skill in the art at the time of the invention to have determined in order to meet the criteria of having compression.

Response to Arguments

4. Applicant's arguments filed 10/19/09 have been fully considered but they are not persuasive. Applicant has argued that in the Buss patent, the plates are used only in installation of the probe body and are never disposed on the probe body and remain only on the soil surface or that Buss does not disclose **gapless** contact or that the stabilizing member is disposed on the probe body and is not removed after installation. Such arguments are not found persuasive because in the Buss patent, the stabilization plates are disposed on the external surface of the probe body-note that there is no indication that the stabilization plates be secured to the probe body but the claim language merely indicates "disposed on" which limitation is met by Buss. Further, with regard to the plates remaining on the soil surface, note that the pegs 20a of the stabilization plates 20 are positioned beneath the ground, at least in part when the probe is inserted into the ground. Furthermore, as to the argument that Buss does not disclose gapless

contact, it is noted that the claim language does not include this terminology; the language found in the claim such as “disposed on” or to ”minimize” flow of water has been met since the terminology of “minimize” does not mean totally halting the flow. Further, with regard to the stabilization plates being removed after installation, it is noted that there is no claim language specifying that the stabilization plates cannot be removed. Again note that the designation “disposed on” merely indicates to be “placed on” which limitation is met by the Buss patent since for a while at least, the stabilization plates are disposed on the probe body.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nashmiya S. Fayyaz whose telephone number is 571-272-2192. The examiner can normally be reached on Tuesdays and Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. S. F./

Examiner, Art Unit 2856

Application/Control Number: 10/693,017
Art Unit: 2856

Page 8

/Hezron Williams/

Supervisory Patent Examiner, Art Unit 2856